witness Dr. Lacey — an experienced CPA who lectures on GAAP and serves on several accounting boards that review and update GAAP — has refuted.

First, as Dr. Lacey explained both in his written testimony and at the hearing, the notion that shorter lives protect shareholder interests is plainly mistaken. Shorter lives produce higher expenses, lower net income, and lower asset values, which may actually serve to *lower* stock prices, not raise them. Because creditors look at the same financial statements as the stockholders, they too would have a negative reaction to biased, shorter lives and may raise the interest rate they charge the company. There simply is no rule that either shareholders or management prefer shorter versus longer depreciation lives, and Petitioners point to nothing that would suggest otherwise. (*See* VZ-VA Ex. 105 at 11-13; VZ-VA Ex. 119 at 6-7; Tr. at 3336.) Because Verizon VA uses the depreciation lives it recommends in this proceeding for all of its operations and in a variety of contexts outside of UNE pricing, Verizon VA has no incentive to use shorter depreciation lives solely in order to raise UNE rates.

The same is true with respect to AT&T/WorldCom's argument that GAAP lives are unreliable because GAAP embraces the "principle of conservatism." Verizon VA's witness Dr. Lacey, who served on a committee that established GAAP and is a co-author of some of the GAAP principles, is the one witness in this case with the unimpeachable credentials and expertise to opine on those principles and their practical application. (Tr. at 3291.) As Dr. Lacey explained, the Accounting Standards Executive Committee on which he was a voting member in 1993 specifically rescinded the standard that implied a bias of conservatism would be acceptable. While conservatism is still mentioned in FASB's Accounting Concept Statement 2, it is specifically not in the "Hierarchy of Accounting Qualities."[9] (Tr. at 3308; VZ-VA Ex. 119 at 3.) This was done in order to ensure that application of GAAP produced its ultimate goal: the "right answer . . . an unbiased answer, our best answer." (Tr. at 3311-12.)

AT&T/WorldCom insist, however, that the Commission should disregard Dr. Lacey's expert opinion with respect to the principles that he helped draft, calling his interpretation of his own work "cramped." (AT&T/WCom Br. at 100.) They argue that the Commission instead should rely on Mr. Lee's opinion that the "accounting profession [never] intended to nullify the conservatism principle in this way." (AT&T/WCom Br. at 101.) And their supposed "smoking gun" is the fact that FASB did not suggest that there was *never* a place for conservatism and continues to define the term. But Mr. Lee's effort to play with the language he seized upon is unavailing. Dr. Lacey explained that GAAP still permits a "conservative" approach to *total* uncertainty, but that the 1993 repeal of that principle from the Hierarchy of Accounting Qualities was intended to limit its application to the rare circumstance where all the information available suggested that two lives were about *equally* likely and there was no way to determine which life was more appropriate. As long as there is *any* data that would be better than "flipping a coin," GAAP requires determining a life consistent with that data rather than selecting a shorter one. (Tr. at 3322 (Lacey).)

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[9] Petitioners point to a handful of cases that cite the fact that GAAP includes the principle of conservatism. (*See* AT&T/WCom Br. at 97-98.) Petitioners' reliance on these cases is misplaced. Some of those decisions simply are outdated (the first FCC case Petitioners cite is from 1993, for example); others simply fail to reflect that GAAP has been revised and no longer embraces that principle. Such evidence may never even have been presented in those proceedings.

Moreover, while conservatism has its (rare) place, Dr. Lacey, who is responsible for supporting the fact that Verizon VA's lives are GAAP-compliant, certainly never indicated that he found it necessary to apply the principle of conservatism in this case. While setting depreciable lives may be a difficult exercise, as Petitioners argue (AT&T/WCom Br. at 100), this does not bring the principle of conservatism into play. GAAP is designed to identify the *best available estimate* of economic lives, and Dr. Lacey testified that Verizon VA had done so in this case. Petitioners have shown no basis to believe otherwise.

2. Benchmarking Supports Use of Verizon VA's Lives.

Petitioners next argue that the Commission should disregard any other lives that might provide a useful benchmark for the lives that Verizon VA uses in its studies. The problem with which AT&T/WorldCom must contend is that the lives of other industry players — Petitioners themselves and cable television operators — are reasonably comparable to the lives Verizon VA uses. While Petitioners would like to dismiss such data as irrelevant, the Commission itself, at the hearing, requested data concerning AT&T's and WorldCom's intrinsically relevant financial reporting lives. That data shows that Verizon VA's lives are reasonable. For example, AT&T's 1999 financial reports used lives significantly shorter than Verizon VA's GAAP lives. (Tr. at 3263-64.)[10/] WorldCom's lives are comparable to Verizon VA's proposed lives as well; for instance, WorldCom uses a ten-year life for digital switching (the same life proposed by Verizon VA), a fifteen-year life for circuit equipment (compared to Verizon VA's proposed nine years),

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[10/] Moreover, the data provided by AT&T establishes that AT&T accounts for the same categories of equipment that are at issue in these proceedings, further demonstrating the relevance of AT&T's data to Verizon VA's GAAP lives.

and a forty-year life for conduit systems (compared to the fifty-year life proposed by Verizon VA). (*See* AT&T/WCom Response to record request 1 (10-23-01) (Att. 1).)[11/]

3. Lives Established in 1994 Cannot Possibly Account for the Technology and Competition That Has Developed in the Ensuing Eight Years.

Finally, AT&T/WorldCom suggest that the FCC's 1994 lives sufficiently reflect the technology and competition that have developed in the eight years since they were set — and that, if anything, the lives the FCC set then should be *longer* to reflect their bizarre view that technology and competition have somehow *lengthened* lives.

As Petitioners see it, "[b]ecause the FCC's lives are 'economic' lives, they take into account expected changes" in capital goods prices, competition, technology — anything that "can be expected to affect the economic life of the assets in question." (AT&T/WCom Br. at 103.) But while this is clearly an optimal *goal* when setting economic lives, Petitioners cannot seriously contend that the FCC was perfectly prescient eight years ago — that it anticipated the 1996 Act, the explosion of the Internet, packet switching, and all other developments that have occurred in the ensuing years. It is precisely because such accuracy and prescience is so intrinsically unattainable that GAAP lives are reset periodically — to account for developments that require an update of the earlier estimate of an asset's life. (Tr. at 3383 (Lacey).) And it is precisely because there have been such developments that the FCC has prescribed shorter, more updated lives since 1994, first in 1995 and then again in 1999. (VZ-VA Ex. 114 at 4-5.) For

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11/ AT&T/WorldCom also seek to score points by attacking the lives recommended by Technology Forecasting Group ("TFI"). (AT&T/WCom Br. at 102.) But this is a curious focus: Verizon VA has not adopted or recommended the TFI lives. It simply demonstrated that its lives are comparable — and generally *longer* than the TFI lives.

example, in recognition of those same developments and the changing telecommunications market, the FCC recently has decreased the prescribed life for digital switches to 10.5 years for Verizon South, Inc. — seven years less than the old life that Petitioners continue to advocate. (VZ-VA Ex. 120 at 2.)

What is particularly ironic is that AT&T/WorldCom's witness, Mr. Lee, admitted at the hearing that had the FCC revisited Verizon VA's depreciable lives in a represcription proceeding, Petitioners would have advocated the use of whatever those represcribed lives were for these proceedings.[12/] (Tr. at 3269-70.) In essence, then, Petitioners are not suggesting that technology and competition have not had a real economic impact on Verizon VA — but that the Commission should ignore that impact purely on the ground that it has not considered it in an unrelated represcription proceeding.[13/] That wholly unprincipled position belies AT&T/WorldCom's pretense that they seek economically correct lives. What they seek are simply *long* lives — lives that will decrease UNE rates as much as possible, regardless of cost.

12/ After Mr. Lee acknowledged he was aware that the FCC recently prescribed a 10.5 year life for Verizon South Inc., Verizon VA counsel asked Mr. Lee: "[I]f this proceeding were for the other Verizon incumbent in Virginia, you would be recommending a 10-and-a-half year life?" Mr. Lee responded, "[t]hat's correct." (Tr. at 3270.)

13/ Petitioners in fact suggest that because Verizon VA has not sought represcription, it may not advocate lives here that are different from the FCC's existing lives, apparently on the theory that Verizon VA knew those lives would be at issue here and thus had some obligation to initiate a represcription proceeding. (*See* AT&T/WCom Br. at 104 n.102.) That is silly. Verizon VA had no reason, under state regulations, to seek represcription. (*See* Tr. at 3412 ("Verizon is a price cap carrier, and depreciation expense doesn't affect [the] price cap.")(Sovereign).) Instead, Verizon VA appropriately believed that this Commission would apply TELRIC-compliant GAAP lives in these proceedings, rather than FCC lives set outside the TELRIC context and without reference to the relevant principles and constraints.

In contrast, Verizon VA's GAAP lives are designed to account for the real technological and competitive developments with which Verizon VA has to contend, and the impact they have had on the depreciable lives of Verizon VA's telecommunications assets.[14] Verizon VA's lives also are set with an eye toward anticipating the impact that additional (and in some cases accelerated) technological change and increasing competition will have. While this cannot be predicted with total certainty, Verizon VA's lives are designed to provide the most accurate estimate available based on *current information.* And such current information — such as the increasing competition from broadband providers (as well as wireless providers and others) which may lead to eventual obsolescence of the digital switch, SONET equipment, and copper — suggests that Verizon VA's lives *must* be shorter than those the FCC prescribed eight years ago.[15]

Moreover, under TELRIC, depreciable lives should not simply reflect actual competition or actual anticipated competition. To comply with the TELRIC framework — something that the Commission was not required to do when it set lives in 1994 — depreciable lives must assume the hypothetical world in which facilities-based competition is a reality. As Ms. Murray

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14/ Petitioners' effort to support their outdated lives through an analysis of Verizon VA's depreciation reserve (AT&T/WCom Br. at 96) does not prove that the FCC's 1994 lives could possibly be considered forward-looking today. (*See* VZ-VA Ex. 113 at 2-9.)

15/ Petitioners' suggestion that technological change and competition have lengthened lives is absurd. They argue, for example, that the purchase of UNEs is an *alternative* to facilities-based bypass, so that now incumbent LECs have a new use for their network. (AT&T/WCom Br. at 103.) But TELRIC assumes that there will be a competitor whose network is the equivalent of Verizon's, and who thus would *compete* with Verizon in the UNE wholesale business. (*See, e.g.,* Tr. at 3368-69 (Preiss); VZ-VA Br. at 39-40.) Ms. Murray in effect admitted that Petitioners' argument rests on the absence of facilities-based competition — an assumption wholly inconsistent with the remainder of Petitioners' approach to UNE costing.

admitted, the network would have to be repeatedly repriced to account for the "diminution of the value to the wholesale resource because of the technology change" that the new, efficient competitor would be able to instantaneously deploy. (Tr. at 3408-09.) When this risk is taken into account, Verizon VA's depreciable lives are too *long*. Certainly this Commission's 1994 lives were not designed to account for this risk or the other regulatory risks associated with TELRIC. Mr. Lee plainly admitted this, conceding that the lives he recommends are *not* based on a hypothetical TELRIC world (Tr. at 3371), but instead on a world that does not even exist any longer today — a world in which the ILEC is the *sole* provider of local service. (Tr. at 3396.)

While AT&T/WorldCom assert that the frequent revaluation of assets does not shorten lives (AT&T/WCom Br. at 105), after making this statement, they find themselves without an argument to support it. The only possible support they have is the claim that depreciation lives may be long where the technology is "sufficiently mature" (AT&T/WCom Br. at 105), but of course they dare not suggest that telecommunications technology is "mature," as this would detract from their ability elsewhere to suggest that Verizon VA's UNE costs be assessed on the basis of imaginary technology that clearly has not been developed to date. Instead they reiterate the argument that in 1994, the Commission anticipated every technological change that was likely to come to fruition between then and now. (AT&T/WCom Br. at 105-06.)

B. The Cost of Capital Employed in Verizon VA's Studies Is Far More Appropriate Than Petitioners' Proposal.

It should now be clear that Petitioners' proposed 9.54% cost of capital severely understates the appropriate cost of capital that should be adopted in these proceedings. They have offered no reason for such a substantial downward departure from the 11.25% the Commission established as the starting point for cost of capital in a TELRIC model.[16/] More tellingly, the record now reveals that the cost of capital each Petitioner actually uses for the local exchange market is substantially higher not only than the Commission's starting point but than what Verizon VA itself proposes here. **[BEGIN AT&T PROPRIETARY]** XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX **[END AT&T PROPRIETARY]** **[BEGIN WORLDCOM PROPRIETARY]** XXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX**[END WORLDCOM PROPRIETARY]**

As Verizon VA has explained, 12.95% is the cost of capital that Verizon VA uses in making network investment decisions.[17/] This represents a highly conservative estimate of Verizon VA's forward-looking cost of capital, a conclusion confirmed by the fact that Petitioners use figures that are more than **[BEGIN AT&T AND WORLDCOM PROPRIETARY]** XXXXXXXXXXXXXX. **[END AT&T AND WORLDCOM PROPRIETARY]** The cost of capital used in Verizon VA studies does not even fully account for all the risks inherent in the TELRIC regime, particularly if that regime were interpreted in the extreme manner that Petitioners advocate. (*See, e.g.*, VZ-VA Ex. 104 at 5.)

16/ *Local Competition Order* at 15856 ¶ 702 (emphasis added).

17/ As they do numerous times in their brief, Petitioners, lacking any substantive response, resort to entirely unsubstantiated accusations that Verizon VA or its witnesses are lying about Verizon VA's use of this cost of capital. (AT&T/WCom Br. at 93-94.) Such desperate tactics should be rejected for what they are.

On the other hand, Petitioners' proposed cost of capital fails to reflect the risks of a fully competitive UNE market — let alone the other regulatory risks that result from their extreme interpretation of TELRIC — even though most of the remaining costs in their model are based on those very assumptions. Petitioners' economist admitted at the hearing that this inconsistency was indefensible, and the point is only further underlined by their brief. Petitioners have failed to overcome this fatal flaw and, even apart from that, their criticisms of Verizon VA's cost of capital figure and defense of their own proposal fail on their own merits.

1. Petitioners Cannot Overcome Their Concession That Their Proposed Cost of Capital Violates TELRIC.

AT&T/WorldCom concede that their cost of capital does not take into account the regulatory risks inherent in TELRIC, including its requirement that costs be based on those that would exist in a fully competitive market. As discussed in Verizon VA's initial brief, Petitioners' economist, Ms. Murray, acknowledged during the hearings that this was a mistake. As she put it, "all the model assumptions have to be consistent. So, to the degree that it requires a competitive market to get all of the other assumptions, that would be true for the cost of capital as well." (Tr. at 3202.) This conclusion should be uncontroversial. If the goal of TELRIC is, as the Commission has stated, to arrive at costs that "best replicate[], to the extent possible, the conditions of a competitive market,"[18] then all the cost components naturally should reflect that competitive market assumption. (*See* VZ-VA Br. at 26-27, 44; *see also* Tr. at 3475-76 (Vander Weide).)

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[18] *Local Competition Order* at 15846-47 ¶ 679.

Notwithstanding the common sense nature of this conclusion and their own economist's admission (which they neglect to mention), Petitioners now backtrack and contend that the cost of capital need not be based on the assumption of a fully competitive market even if all other costs are. (AT&T/WCom Br. at 69-80.) Their attempts to justify this position from an economic perspective do not withstand even cursory scrutiny. Perhaps not surprisingly, then, much of their argument amounts to the presentation of strained and ultimately incorrect interpretations of Commission statements in the vain hope of showing that their unjustifiably inconsistent assumptions are attributable to or consistent with the Commission's rulings. This attempt fails. And, once Petitioners' failure to use a competitive market assumption is recognized as erroneous, many of their remaining arguments simply fall away.

a) The Failure to Use a Competitive Market Assumption in Estimating the Cost of Capital for a TELRIC Study Is Economically Unjustifiable.

Petitioners' attempt to defend their failure to reflect the competitive market assumption in their cost of capital from an economic perspective is singularly unpersuasive. They first trot out the bizarre theory that, while "costs" should reflect those that would accrue in a competitive market, the "returns" need not. (AT&T/WCom Br. at 77.) Apparently, though they do not quite have the audacity to say it, Petitioners seek to suggest that the "*cost* of capital" is not a cost at all. Not surprisingly, AT&T/WorldCom fail to cite a single authority of any kind for this absurd assertion. As the Commission itself has explicitly noted in its discussion of cost of capital under

TELRIC, "the forward-looking cost of capital, *i.e.*, the cost of obtaining debt and equity financing, is one of the *forward-looking costs* of providing the network elements."[19]

Petitioners' attempt to draw economic support for their inconsistent approach from the testimony of Dr. Taylor — a Verizon witness in a separate proceeding more than four years ago. (AT&T/WCom Br. at 78-79.) Petitioners have misinterpreted and misquoted Dr. Taylor. As an initial matter — as AT&T/WorldCom's cost of capital witness conceded — Dr. Taylor was not even addressing the calculation of cost of capital. (Tr. at 3610.) Dr. Taylor made the unremarkable statement that "it is not unheard of for regulators to set prices in noncompetitive markets that replicate the prices that would result from a competitive market." (AT&T/WCom Br. at 78.) That is surely true — indeed, that is what the Commission has stated it is trying to do in TELRIC proceedings — but it is unclear why Petitioners believe this is helpful to them; prices in "a competitive market" would reflect the cost of capital in that competitive market. Petitioners also note that Dr. Taylor observed that "it is possible for a regulatory standard which sets rates at competitive levels to coexist with an environment in which the regulated firm faces less competitive risks than a competitive firm would face." (AT&T/WCom Br. at 78-79.)

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[19] *Local Competition Order* at 15854-55 ¶ 700 (emphasis added). Petitioners' quote from two Supreme Court decisions observing that a public utility is generally entitled to a rate of return equal to that of other firms with "corresponding risks." (AT&T/WCom Br. at 78). These cases are not relevant to the appropriate cost of capital here. In both cases, the regulator was setting rates based on the utility's actual, present costs, rather than any measure of forward-looking costs (let alone a regime such as TELRIC). *See Bluefield Waterworks & Improvement Co. v. PSC of West Virginia*, 262 U.S. 679, 690 (1923); *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 604-05 (1944). Obviously, in the context of those cases, using the rate of return earned by firms with risks similar to the actual risks faced by the utility was consistent with the rest of the cost-setting regime. By contrast, the firms with "corresponding risks" in a TELRIC cost of capital calculation necessarily are firms in a competitive market of the type assumed by TELRIC, not the monopoly market assumed by Petitioners.

Again, why Petitioners believe this statement offers them even a scintilla of aid is unclear. The whole exercise here is to determine how to set the rates at "competitive levels." Obviously such rates should reflect the cost of capital in a competitive market.

Petitioners conclude their economic "defense" of their risk assumptions with the remarkable assertion that Verizon would face a lower competitive risk in a fully competitive UNE market than the risk it faces today. (AT&T/WCom Br. at 79-80.) AT&T/WorldCom base this assertion on the claim that TELRIC assumes a "perfectly contestable market" in which entry and exit are utterly costless and instantaneous. (AT&T/WCom Br. at 79.) Unsurprisingly, they are unable to cite a single authority for this interpretation of TELRIC. But more important, no pricing methodology that hopes to mimic the outcome of a competitive market in local telephony can assume perfect contestability. As Petitioners themselves note, "no local telephone market is perfectly . . . contestable," because, among other things, the market is characterized by sunk costs. (AT&T/WCom Br. at 79; *see also* Tr. at 3163-64 ("There's been a lot said here about assuming or pretending . . . that there's quick entry and exit, and that there are not sunk costs, but that's the world we are in here, and to ignore the reality of this market I think will lead to inefficient results.") (Shelanski).) Thus, Petitioners' assumption of perfect contestability simply has no place in determining the risks Verizon VA would face in a real competitive telecommunications market.

Perhaps recognizing the futility of their contention that cost of capital should not reflect risks that arise from the regulatory regime to which a firm is subject, Petitioners shift gears and contend that a true market-based cost of capital would take regulatory risks into account because investors would be aware of those risks. (AT&T/WCom Br. at 76.) This point, while perhaps true, offers no support for their methodology here. If there were a separate publicly traded company subject to the TELRIC regime, whose only business was UNE leasing, its cost of capital might reflect the relevant risks, regulatory and otherwise. However, as Petitioners concede, no such company exists.[20] (AT&T/WCom Br. at 85 ("[N]o wholesale suppliers of UNEs are publicly traded as stand-alone companies.").) In any case, Petitioners' own cost of capital witness, Mr. Hirshleifer, expressly conceded that his calculations did *not* take into account even the risks of a fully competitive UNE market, let alone the other regulatory risks inherent in TELRIC. (*See* VZ-VA Br. at 45.) Thus, Petitioners' implication that their cost of capital already reflects the relevant regulatory risks, including the assumption that costs should mimic the outcome of a competitive market, is flatly wrong.

b) Contrary to Petitioners' Claims, the Commission Has Not Endorsed Using Inconsistent Competitive Market Assumptions.

Left without a remotely plausible explanation for why it would make economic sense to use competitive assumptions in setting the cost of capital that are inconsistent with those used in calculating most other costs, Petitioners engage in tortured interpretations of various Commission statements. In the end, however, their interpretations are incorrect, and they are unsuccessful in making up for the absence of any economic justification for their approach.

Petitioners primarily argue that the Commission, in a single paragraph of its Local Competition Order, adopted the same inconsistent approach they advocate here. (AT&T/WCom Br. at 70-77.) In particular, they suggest that paragraph 702 of that order "makes clear that the incumbent LECs bear the burden of 'demonstrating with specificity' the competitive risks they

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[20] Moreover, as discussed below, Petitioners' choice of proxy group fails to capture the relevant risks.

will actually face" and that this "factual inquiry" would be meaningless if the cost of capital had to reflect a competitive market. (AT&T/WCom Br. at 70.) However, paragraph 702 does not have the meaning that Petitioners attribute to it.

Petitioners' paraphrase of what they apparently see as the key sentence in paragraph 702 is misleading. That sentence provides, in relevant part, that incumbents "bear the burden of demonstrating with specificity that *the business risks* that they face in providing unbundled network elements . . . would justify a different risk-adjusted cost of capital" from the "starting point" of 11.25%.[21/] The analysis therefore requires two steps: (1) identifying the "business risks that [incumbents] face in providing" UNEs and (2) "demonstrating with specificity that" those risks justify a higher cost of capital. Petitioners conflate and unduly constrain these analytical steps by suggesting both that "business risks" are somehow limited to "the competitive risks they will actually face" and that the specific demonstration that is required is a factual inquiry into what actual, competitive risks the incumbent will face.

In fact, however, "specificity" of proof is required with respect to the showing that the business risks, once identified, justify a cost of capital different from the Commission's starting point. But more important, it is absolutely clear that the Commission has never limited the "business risks" that may impact the cost of capital to "actual competitive risks," but instead considers the broader range of risks that the incumbent faces.[22/] Critically, those "business risks

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21/ *Local Competition Order* at 15856 ¶ 702.

22/ Petitioners engage in language games when they suggest that Verizon VA's interpretation would transform the Commission's phrase "the business risks that they face in providing unbundled network elements" into "the risks a firm *would* face *if* the market were *assumed* to be highly competitive." (AT&T/WCom Br. at 71 (emphasis in original).) In fact, the regulatory risks created by TELRIC — including its requirement of pricing based on competitive market that [incumbents] face in providing unbundled network elements" encompass the regulatory risks created by TELRIC pricing, including (but not limited to) its requirement that prices be set based on the assumption of a competitive market. The Commission's reply brief in the Supreme Court confirmed precisely that point when it stated that "an appropriate cost of capital determination takes into account *not only existing competitive risks*, as the FCC recently recognized (*see Local Competition Order* at 15856 ¶ 702, J.A. 395-396), *but also risks associated with the regulatory regime to which a firm is subject*."[23]

Petitioners unsuccessfully seek to explain away this unequivocal language by pointing to the following sentence in the same footnote, which states, "[t]hat second consideration is, notwithstanding the incumbents' contrary suggestion (BellSouth Resp. Br. 30-32), implicit in any determination of the true economic cost of capital." (AT&T/WCom Br. at 74 (quoting FCC Reply Brief at 12 n.8).) But this quote simply underlines that the Commission has interpreted TELRIC to require consideration of the regulatory risks when calculating the "true economic cost of capital." Indeed, in the part of the incumbents' brief the Commission referenced, the incumbents had argued that TELRIC had been interpreted (consistent with Petitioners' position here) to exclude consideration of regulatory risks, including the competitive market assumptions

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assumptions — are "risk[s] that [incumbents] face in providing unbundled network elements" *today*, not one they "would face."

[23] FCC Reply Brief at 12 n.8 (emphasis added). Petitioners' suggestion that the Commission's citation to paragraph 702 in the footnote somehow supports their position (AT&T/WCom Br. at 74) is unavailing. First, as discussed above, paragraph 702 expressly recognizes the need to consider all "business risks," not just actual existing competitive risks. Second, the citation to paragraph 702 in the FCC's reply brief appears after the reference to existing competitive risks, which is then followed by the phrase "but *also* risks associated with the regulatory regime." FCC Reply Brief at 12 n.8 (emphasis added). Thus, even if paragraph 702 were limited as Petitioners suggest, the Commission has now made clear that the cost of capital must also account for regulatory risks.

inherent in TELRIC. The quoted language indicates the Commission's position that, "notwithstanding" the incumbents' "suggestion" that TELRIC had been interpreted to exclude consideration of these risks in determining the cost of capital, the "true economic cost of capital" required under TELRIC would in fact take these risks into account.[24/]

Petitioners' attempt to rely on a snippet of Dr. Vander Weide's testimony in New Jersey to claim that he cannot explain the meaning of paragraph 702 in a manner consistent with Verizon VA's position (AT&T/WCom Br. at 71) is silly, especially since they entirely ignore the fourteen pages of the hearing transcript devoted to this same issue in these proceedings. (Tr. 3562-75.) Petitioners' decision to ignore this testimony is not, of course, accidental. In the hearings here, Dr. Vander Weide explained at length that paragraph 702, especially when read in conjunction with the Commission's Supreme Court reply brief, means that the incumbent needs to demonstrate that the starting point of the current rate of return should be adjusted to reflect the business risks involved in providing UNEs, including risks created by the assumptions in the cost methodology.[25/] (Tr. at 3567-71.)

[24/] Petitioners' reliance on the Commission's cite to its 1990 Rate Represcription proceeding at the end of the footnote in its reply brief fares no better. (AT&T/WCom Br. at 75-76.) In that proceeding, the Commission concluded, consistent with Verizon's position here, that the regulatory risk that the Commission might disallow certain investments from a firm's rate base *should be* included in the firm's cost of capital. *See Represcribing the Authorized Rate of Return for Interstate Servs. of Local Exch. Carriers*, 5 FCC Rcd 7507, 7521 ¶ 120 (1990) ("*Represcription Order*.")

[25/] In New Jersey, Dr. Vander Weide explained that the particular phrase had to be read in context, and that it "doesn't detract from the fact that the entire goal [of TELRIC] was to replicate the results of a competitive marketplace." (AT&T Ex. 110 at 358.)

Petitioners' contention that a report prepared by the consulting firm NERA supports their interpretation (AT&T/WCom Br. at 77) is similarly unavailing. Indeed, it is not even clear what portion of the quoted statements Petitioners are relying upon. The quoted passage notes that the "increment" of demand to be modeled is the total demand; that the relevant time horizon is the

c) Verizon VA Has Provided Substantial Evidence of the Risks It Faces in Supplying UNEs.

Although a TELRIC cost study ultimately must assume a fully competitive market, the competition that Verizon VA faces today already makes the UNE market risky, and this risk inevitably will only grow as the market becomes more competitive. Verizon VA produced significant evidence of the existing competition from facilities-based providers of local service. (*See* VZ-VA Ex. 112 at 21; VZ-VA Ex. 118 at 28.) Petitioners entirely ignore this Virginia-specific evidence, suggesting that the competition affects only Verizon VA's retail business, and that Verizon VA's wholesale business is far less risky. (AT&T/WorldCom Br. at 80-81.) But facilities-based competitors can and do provide an alternative to Verizon VA's network not simply for retail services but for wholesale services and facilities. As Verizon VA has explained, competitors offering facilities-based local exchange service directly compete with Verizon VA's provisioning of unbundled network elements. (VZ-VA Ex. 112 at 21.) And in the fully competitive market assumed by TELRIC, this will only be more true.[26]

Petitioners do not even try to discredit the hard evidence presented by Verizon VA that facilities-based competition in Virginia is increasing. Instead, they offer nothing more than a few general national or regional statistics. (AT&T/WCom Br. at 83.) But, as Mr. West explained, Verizon VA faces competition from facilities-based CLECs and from alternative

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long run; and that, since the methodology requires modeling the total demand in a single network over the long run, it implicitly assumes that the incumbent owning that network will be a monopoly. (*Id.*) Of course, nothing about this passage suggests using a monopoly assumption for cost of capital on the one hand and a competitive market assumption for most other costs. Thus, this passage is simply irrelevant to the issue at hand.

[26] *See Bell Atlantic-Delaware, Inc. v. McMahon*, 80 F. Supp. 2d 218, 240 (D. Del. 2000) (noting that "Bell's prominence as a wholesale provider of network elements will remain largely unaffected — at least until new entrants build their own networks").

technologies, including data providers, cable operators, and wireless carriers. These companies offer alternative methods of providing voice service that threaten to bypass the local loop completely, posing real risks to Verizon VA's wireline network, and the development and deployment of these technologies continues to increase. (VZ-VA Ex. 107 at 38; *see generally* VZ-VA Ex. 103 at 14-17 at Att. A.)

Moreover, Petitioners ignore the regulatory risks faced by Verizon as a wholesale provider of UNEs. Verizon VA is required to make significant sunk investments to facilitate the movement of business off its network, yet carriers are not even obligated to take service. As Dr. Vander Weide explained:

> Verizon VA is required to provide UNEs to competitors, and as part of that, they have to make significant investment . . . to do that, but competitors have no obligation to take the service. In fact, they could take it for one month at a time, and at the time they built their own facilities, they can decide no longer to take the service, which means that the investment that was made to provide those UNEs may not earn an adequate rate of return. (Tr. at 3513-14.)

The TELRIC pricing methodology also creates regulatory risks. For example, while telecommunications firms generally have to confront the risk of changes in demand and technology, that risk is significantly exacerbated by TELRIC requirements that prices be successively reset on the basis of an assumed reconstructed network. And, of course, these risks would only be compounded if Petitioners' extreme interpretation of TELRIC were adopted.

d) Many of Petitioners' Remaining Arguments Are Premised on Their Erroneous Failure to Assume a Competitive UNE Market.

Because many of Petitioners' remaining cost of capital arguments depend on their assumption that the cost of capital need not reflect the risks of a competitive market (or the regulatory risks inherent in TELRIC), once that assumption is discredited, as it easily is, Petitioners' other arguments are fatally undermined as well.

First, Petitioners' contention that a handful of telecommunications holding companies are the appropriate proxy group to use to determine Verizon VA's TELRIC cost of capital (AT&T/WCom Br. at 85-90) makes no sense when the goal is to mimic the outcome of a competitive market for UNEs. Petitioners rightly note that a valid comparison group should "consist[] of other companies that are comparable in business risk to the company being analyzed." (AT&T/WCom Br. at 85.) But here the relevant business risks consist of those faced by a provider of UNEs forced to price using TELRIC in a competitive marketplace. As Verizon VA previously explained, large, diversified telecommunications holding companies do not reflect the relevant competitive risks, let alone the regulatory risks inherent in providing UNEs under TELRIC.[27] (VZ-VA Br. at 50.) Petitioners' claim that Mr. Hirshleifer's proxy group is appropriate because the stock prices of these holding companies already reflect the risks of a competitive UNE market (AT&T/WCOM Br. at 87-88) is meritless. Because, among other things, the revenues from the UNE leasing business are only a miniscule portion of the revenues of these holding companies, and they otherwise participate in a wide array of telecommunications businesses that permit them to diversify away many technology risks, the

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27/ In addition, as Verizon VA previously explained, the use of such a small data sample renders the reliability of AT&T/WorldCom's analysis suspect at best. (VZ-VA Ex. 118 at 35.) AT&T/WorldCom attempt to justify the use of a small data sample by noting that their estimates for these three companies fall in a narrow range. (AT&T/WCom Br. at 90). But this proves nothing. One would expect these companies to have approximately the same cost of equity under Mr. Hirshleifer's analysis because they have similar dividend yields, and Mr. Hirshleifer assigned all of these companies the same long-run growth rate.

relevant risks of the UNE leasing business priced at TELRIC are not captured in their stock prices.[28/] (*See* Tr. at 3514; VZ-VA Ex. 118 at 35.)

By contrast, Dr. Vander Weide's use of a large group of S&P industrial companies serves as a conservative proxy for the risks Verizon VA faces in a UNE market under the competitive pricing assumptions of TELRIC.[29/] (VZ-VA Ex. 118 at 34.) Indeed, Verizon VA's approach understates the risks inherent in TELRIC, particularly if it were interpreted, as Petitioners advocate, to require the network to be successively repriced based on the assumption of instantaneous entry by a carrier with current least-cost technology throughout its network. (*See, e.g.*, VZ-VA Ex. 104 at 5.)

Petitioners' claim that the S&P Industrials are an inappropriate proxy group because they have different business risks than a local telecommunications provider (AT&T/WCom Br. at 85-86) misses the point. The fundamental requirement for a proxy group is that it have the same or similar *level* of risk, not the same type of risk as the company being analyzed. Indeed, Petitioners' CAPM analysis rests on this precise premise: that all companies with the same beta, no matter what their business, have the same risk. (*See, e.g.*, AT&T/WCom Ex. 5 at 21-22.) Petitioners' ultimate complaint appears to be their belief that the average risk of these companies

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28/ Petitioners' attempt to draw support from Bell Atlantic's and GTE's use of telecommunications holding companies as proxies in their merger filings (AT&T/WCom Br. at 87) fails for the same reason. While it may well make sense to view other telecommunications holding companies as proxies for the risks faced by the Bell Atlantic and GTE *holding companies*, that says nothing about what proxy is appropriate for a wholesale provider of UNEs under TELRIC.

29/ Petitioners incorrectly suggest that "Dr. Vander Weide's main argument for using the S&P 400 group in this case is that local telephone companies can expect to face significantly more competitive risk in the future." (AT&T/WCom Br. at 87.) In fact, Dr. Vander Weide's choice of proxy group reflects the fact that Verizon VA must provide UNEs *now* under TELRIC's competitive market assumptions.

is higher than the risk in the business of supplying UNEs. (AT&T/WCom Br. at 86.) But this belief at best ignores the fact that TELRIC requires pricing UNEs today as if the market were at least as, if not more competitive than, the markets in which the S&P companies compete.

Petitioners' argument that the "FCC properly rejected the use of Dr. Vander Weide's index approach" in its 1990 Rate Represcription proceeding again misses the point. The 1990 proceeding was a traditional, rate of return regulation case that obviously took place before passage of the 1996 Telecommunications Act. Unlike the current UNE proceeding, the Commission was not, of course, aiming to calculate a cost of capital that attempted to replicate the rates of providing UNEs under TELRIC assumptions.[30]

2. Petitioners' Theoretical Arguments Regarding Single-Stage v. Three-Stage DCF Models Miss the Point.

Petitioners devote much of their brief to arguments about whether, as a theoretical matter, a single-stage or three-stage model more appropriately calculates the cost of equity (AT&T/WCom Br. at 59-68), apparently in the hope of distracting the Commission from analyzing the actual *results* of the two different DCF models presented by the parties in these proceedings. The relevant question is not how many stages are assumed in each model, but whether their assumptions produce reasonable results. Unlike Petitioners' three-stage model,

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30/ In any event, Petitioners' description of the Commission's decision in that proceeding is inaccurate. First of all, the Commission did find that DCF results for the S&P Industrials could be used "as a corroborating" benchmark for other cost of equity methodologies. *Represcription Order* ¶¶ 179, 182. In particular, they noted that the cost of equity for telecommunications companies would likely fall midway between the average of the DCF results for the first and second quartiles of the S&P Industrials. *Id.* ¶ 166. Notably, in making this determination, the Commission used the single-stage DCF model, not a three-stage model. *Id.* ¶¶ 4, 132. Applying the Commission's 1990 criteria today would result in a cost of equity of 13.2%, well above Mr. Hirshliefer's DCF cost of equity of 10.24 % for Verizon.

Verizon VA's single-stage model passes this test — as Petitioners' own internal cost of capital estimates confirm.

Dr. Vander Weide unequivocally demonstrated that based on two straightforward criteria, Petitioners' three-stage model produces results that defy common sense. First, Dr. Vander Weide showed that Mr. Hirshleifer's DCF model produces the illogical result that *higher* risk companies have a *lower* cost of equity than lower risk companies. (VZ-VA Br. at 51-52.) Thus, for example, Mr. Hirshleifer's three-stage DCF model results in high risk companies with high betas, high growth rates, and low dividend yields having lower costs of equity than low-risk companies with low betas, low growth rates, and high dividend yields. (VZ-VA Ex. 112 at 71-75; VZ-VA Ex. 118 at 43-44.) By contrast, Verizon VA's growth assumptions are consistent with the fundamental principle that higher risk investments require higher rates of return.

Petitioners baldly claim that the "assumptions that Dr. Vander Weide made to reach these results would embarrass a first-year graduate student," though they fail to identify those allegedly embarrassing assumptions. (AT&T/WCom Br. at 67.) In fact, Dr. Vander Weide was simply following well accepted financial principles — that beta is a measure of risk; that high-growth companies are considered more risky than low-growth companies; and that high-dividend paying companies are less risky than companies paying lower dividends. These assumptions would be — and are — accepted not only by first-year graduate students, but also by the entire financial community. Indeed, Mr. Hirshleifer himself uses beta to measure risk in his alternative Capital Asset Pricing Model ("CAPM").

Dr. Vander Weide's second test likewise demonstrates that Mr. Hirshleifer's three-stage DCF model produces unreasonable results because it fails to reflect *investors'* growth expectations. As Dr. Vander Weide explained, because a company's price-to-earnings ratio reflects the growth rates investors use in determining the value of a company, the ratio should be significantly and positively correlated with the growth rates that investors use in valuing stocks. (*See* VZ-VA Ex. 192.)

Dr. Vander Weide's regression analysis established, however, that the statistical correlation between the average growth rate and price-to-earnings ratio in Mr. Hirshleifer's three-stage DCF model is essentially zero, indicating that investors do not use Mr. Hirshleifer's growth assumptions when they value companies' stocks.[31/] (*See* VZ-VA Ex. 192.) Moreover, Mr. Hirshleifer's average three-stage growth rates produce the illogical result that higher growth companies have lower price-to-earnings ratios than lower growth companies. (*See* VZ-VA Ex. 192.) Conversely, Dr. Vander Weide's single-stage DCF model with the I/B/E/S growth rates results in a highly significant correlation between growth rates and stock prices and produces the logical result that higher growth companies have higher price-to-earnings ratios than lower growth companies. (*See* VZ-VA Ex. 192.)

Petitioners' attempt to discredit Dr. Vander Weide's second analysis fares no better than their attack on his first. They initially claim that Dr. Vander Weide inappropriately used single-stage, rather than multi-stage, growth assumptions in describing Mr. Hirshleifer's three-stage DCF analysis. (AT&T/WCom Br. at 68.) But Dr. Vander Weide used the *average* of the 17 growth rates contained in Mr. Hirshleifer's model. That average is appropriate because it

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31/ Dr. Vander Weide's second test is similar to the regression analysis he performed in an article titled, "Investor Growth Expectations: Analysts versus History," *The Journal of Portfolio Management*. (Spring 1988). Petitioners suggest that the results reported in this article do not apply here because the studies in the article apply only to regulated utilities. (AT&T/WCom Br. at 66-67.) But Dr. Vander Weide's current analysis shows that the single-stage growth assumptions explain the stock prices of both industrial companies and regulated companies, while the three-stage growth assumptions do not.

produces exactly the same DCF results as Mr. Hirshleifer's 17 individual growth rates and captures all the relevant information contained in those separate variables. (*See* VZ-VA Ex. 192.)

Petitioners' claim that Dr. Vander Weide's second analysis improperly used a linear function form to test a nonlinear economic relationship (AT&T/WCom Br. at 68) is likewise off base. Using a linear function is entirely appropriate because the price-to-earnings ratios should be approximately linearly related to the *average* growth rate used in Mr. Hirshleifer's three-stage DCF model. And as noted above, Mr. Hirshleifer's own use of beta to measure risk in his CAPM analysis undermines Petitioners' additional contention that Dr. Vander Weide should not have used betas as risk proxies for the cost of equity. (AT&T/WCom Br. at 68.)

In a final attempt to defend Mr. Hirshleifer's unreasonable three-stage DCF results, Petitioners presented an alternative regression of price-to-earnings ratios against the DCF results produced by the single-stage and three-stage DCF models. (*See* Objections of AT&T/WCom (filed Dec. 18, 2001) at 4-17.) This alternative regression analysis is patently flawed. All linear regression analyses have the form, $y = a + bx$, where y is the dependent variable, and x represents one or more independent variables. The basic assumption of a regression analysis is that the variable (or variables) on the right-hand side of the regression equation are independent of (*i.e.*, can be determined without knowledge of) the variable on the left-hand side of the regression equation. Petitioners' alternative regression analysis, however, has a company's price-to-earnings ratio on the left-hand side of the regression equation, and the company's DCF cost of equity on the right-hand side of the equation. This is backward: the DCF cost of equity *depends* on the value of the stock price on the left-hand side of Petitioners' regression equation because the DCF cost of equity is essentially equal to dividend yield plus growth, and calculation of the dividend yield requires knowledge of the stock price.[32/]

Unable to explain the unreasonable results of their model, Petitioners rely on essentially a single criticism of Verizon's single-stage DCF — that Verizon's DCF growth assumptions would mean that the proxy group would overtake the economy at some point in the future. (*See* AT&T/WCom Br. at 60.) While technically correct, this observation is irrelevant. Companies do not have to grow at the same rate forever for a single-stage DCF model to reasonably approximate how prices are determined in capital markets. Because future periods are discounted in the DCF model, the fact that the proxy groups would technically overtake the economy at some distant point of time has a relatively small effect on the cost of capital used in Verizon VA's studies. (VZ-VA Ex. 112 at 44.)

Petitioners dispute Verizon's contention, arguing that "the present value of the difference between 40 years of above-average growth and Dr. Vander Weide's assumption of *perpetual* above-average growth is still large." (AT&T/WCom Br. at 64.) In particular, they claim that a one-stage DCF produces a cost of equity at least 150 basis points higher than a two-stage model that assumes 40 years of growth. (AT&T/WCom Br. at 64.) But even this hypothetical produces a cost of equity of 13.15, which is 275 basis points *higher* than the result of Mr. Hirshleifer's three-stage model. (*See* AT&T/WCom Ex. 17, Att. JH-1.) Thus, Petitioners' example only illustrates their gross underestimate of the cost of equity.

32/ AT&T/WorldCom's reliance on Mr. Hirshleifer's alternative CAPM analysis (AT&T/WCom Br. at 91) is similarly flawed and understates risk, as demonstrated in Verizon VA's initial brief. (*See* VZ-VA Br. at 53-54.)